

- Subj B1*
1. (Amended) A method for promoting survival of substantia nigra neuronal cells comprising contacting the cells with an amount of a *hedgehog* agonist sufficient to promote the survival of substantia nigra neuronal cells.
  2. (Amended) A method for promoting survival of dopaminergic cells comprising contacting the cells with an amount of a *hedgehog* agonist sufficient to promote the survival of dopaminergic cells.
  3. (Amended) A method for promoting survival of GABA-nergic cells comprising contacting the cells with an amount of a *hedgehog* agonist sufficient to promote the survival of GABA-nergic cells.
  4. (Amended) A method for treating a disorder characterized by loss of dopaminergic and/or GABA-nergic neurons which comprises administering to a patient a therapeutically effective amount of a *hedgehog* agonist sufficient to decrease the rate of neuron loss.
- A<sup>1</sup>*
5. (Amended) A method for the treatment or prophylaxis of Parkinson's disease comprising administering to a patient in need thereof a therapeutically effective amount of a *hedgehog* agonist.
  6. (Amended) A method for the treatment or prophylaxis of Huntington's disease comprising administering to a patient in need thereof a therapeutically effective amount of a *hedgehog* agonist.
- Subj B2*
7. (Amended) The method of any of claims 1-6, wherein the *hedgehog* agonist binds to *patched* and promotes *hedgehog* signal transduction.
  8. (Amended) The method of claim 7, wherein the *hedgehog* agonist is a small organic molecule.
- Subj B3*
9. (Amended) The method of claim 7, wherein the binding of the *hedgehog* agonist to *patched* results in upregulation of *patched* and/or *gli* expression.

*a*  
10. (Amended) The method of any of claims 1-6, wherein the *hedgehog* agonist is a small organic molecule which interacts with neuronal cells to promote *hedgehog* signal transduction.

*Cont*  
11. (Amended) The method of any of claims 1-6, wherein the *hedgehog* agonist promotes *hedgehog* signal transduction by altering the localization, protein-protein binding and/or enzymatic activity of an intracellular protein involved in a *hedgehog* signaling pathway.

12. (Amended) The method of any of claims 1-6, wherein the *hedgehog* agonist alters the level of expression of a *hedgehog* protein, a *patched* protein or a protein involved in the intracellular signal transduction pathway of *hedgehog*.

*a2*  
16. (Amended) The method of claim 12, wherein the *hedgehog* agonist is a small organic molecule which binds to *patched* and regulates *patched*-dependent gene expression.

22. (Reiterated) The method of any of claims 4-6, wherein a patient is being treated prophylactically.

Please add the following new claims

*a3*  
49. (New) The method of claim 11, wherein the *hedgehog* agonist is an inhibitor of Protein Kinase A.

50. (New) The method of claim 11, wherein the *hedgehog* agonist is an inhibitor of Protein Kinase A signal transduction.

51. (New) The method of claim 50, wherein the inhibitor of Protein Kinase A signal transduction is cAMP or analogs thereof.

The amended claims are re-stated below to reflect changes with respect to the last filing.

1. (Amended) A method for promoting survival of substantia nigra neuronal cells comprising contacting the cells with [a trophic] an amount of [an *ptc* therapeutic]a hedgehog agonist sufficient to promote the survival of substantia nigra neuronal cells.
2. (Amended) A method for promoting survival of dopaminergic cells comprising contacting the cells with [a trophic] an amount of [an *ptc* therapeutic]a hedgehog agonist sufficient to promote the survival of dopaminergic cells.
3. (Amended) A method for promoting survival of GABA-nergic cells comprising contacting the cells with [a trophic] an amount of [an *ptc* therapeutic]a hedgehog agonist sufficient to promote the survival of GABA-nergic cells.
4. (Amended) A method for treating a disorder characterized by loss of dopaminergic and/or GABA-nergic neurons which comprises administering to a patient a therapeutically effective amount of [an *ptc* therapeutic]a hedgehog agonist sufficient to decrease the rate of neuron loss.
5. (Amended) A method for the treatment or prophylaxis of [treating or preventing] Parkinson's disease comprising administering to a patient in need thereof a therapeutically effective amount of a hedgehog agonist [an *ptc*therapeutic].
6. (Amended) A method for the treatment or prophylaxis of [treating or preventing] Huntington's disease comprising administering to a patient in need therof a therapeutically effective amount of a hedgehog agonist [an *ptc*therapeutic].
7. (Amended) The method of any of claims 1-6, wherein the *hedgehog* agonist[*ptc* therapeutic] binds to *patched* and [mimics]promotes hedgehog[-mediated patched] signal transduction.